

REMARKS

Claims 1-11 are currently pending in this application. Claim 11 has been withdrawn from consideration in view of an earlier Restriction Requirement. This Amendment cancels claim 11, and amends the specification and claims 1, 5, and 10. Support for the amendments to the specification and claims can be found in the specification, claims and drawings as originally filed. No new matter has been added.

Claim 11 has been cancelled without prejudice. Applicant hereby reserves the right to prosecute cancelled claim 11 by way of a divisional application filed at a later time.

The Examiner has rejected claims 1-7 and 10 under 35 U.S.C. § 102(b) for anticipation by U.S. Patent Publication No. 2002/0184981 to Tsujimoto. The Examiner asserts that Tsujimoto shows a band saw that includes a blade valley, a U-shaped cut out and a tooth having a ski-jump profile with a slight rake angle. In response, independent claims 1 and 10 have been amended to specify "a cut out defined in said blade valley, said cut out position in front of the cutting edge of each tooth and extending through said blade thickness in a lower part of said blade valley." Support for the amendments to the claims can be found, for example, in Figs. 1, 2 and 5-7 of the drawings, in ¶ [0023] on pages 4 and 5 and in ¶ [0030] on pages 7 and 8 of the present specification. As discussed below in detail, the Tsujimoto patent does not teach or suggest a cut out defined in the blade valley as claimed.

The Tsujimoto patent is directed to a saw tooth structure of a band saw blade used in a method of preventing a tooth from continuously breaking. The saw blade BS shown in Figs. 1a and 1b includes a saw tooth TS and a projecting portion 5 disposed on a surface 3 of relief (i.e., blade valley) provided at the rear of a tip 1 of a saw tooth TS (claim 3 and ¶ [0056] on pages 3 and 4). Fig. 1a shows the tooth structure having U-shaped blade valleys separating the saw teeth TS. The Tsujimoto patent does not disclose a blade having a cut out defined in the blade valley as claimed in amended independent claims 1 and 10. Not one of Tsujimoto's many embodiments shows a cut out in the blade valley. Because the Tsujimoto patent does not teach or suggest each and every element of the claimed invention, reconsideration and withdrawal of the rejection of amended claims 1 and 10 and dependent claims 2-7 are respectfully requested.

The specification and claim 5 have also been amended to include language that is consistent with the language found in amended independent claims 1 and 10. No new matter has been added.

The Examiner has rejected claims 1-10 under 35 U.S.C. § 103(a) for obviousness over U.S. Patent No. 4,449,271 to Karubian (hereinafter "the Karubian patent") in view of U.S. Patent No. 5,254,031 to Balke (hereinafter "the Balke patent") for the reasons discussed on page 3 of the Office Action. The Examiner asserts that the Karubian patent shows a meat cutting band saw and the Balke patent discloses a tooth pattern having a blade valley, a U-shaped cut out that is less than the tooth height and a tooth having a ski-jump profile and a slight rake angle. Therefore, the Examiner contends that it would have been obvious to one of ordinary skill in the art to have provided the band saw of the Karubian patent with the tooth pattern of the Balke patent in order to best cut through the meat and bones in a carcass. As discussed below in detail, the prior art references do not teach or suggest the claimed tooth pattern or the advantages associated with the tooth pattern of the present invention.

The present invention, as claimed in amended independent claim 1, provides for a saw blade comprising a longitudinal-extended body having a blade thickness with a blank side and a cutting side, a plurality of spaced teeth having cutting edges formed on the cutting side of the body, a blade valley defined between each adjacent tooth, and a cut out defined in a blade valley wherein the cut out is positioned in front of the cutting edge of each tooth and extends through the blade thickness in a lower part of the blade valley.

The Karubian patent is directed to a band saw used in sectioning animal carcasses in slaughterhouses. The Karubian patent does not disclose a blade having any particular tooth pattern.

The Balke patent is directed to a tool for dissecting and dismembering slaughter stock using a circular saw blade. The circular blade includes a plurality of cutting edges 3 with intermediate cutting gaps 2, the cutting edges 3 exhibiting, at their end pointing in the direction of cutting, a concave area 4, which extends between two approximately equally tall cutting tips 6 and 7, and an adjoining convex or straight area 5 sloping away counter to the direction of cutting (See Abstract and Figs. 1 and 3). The Balke patent does not disclose a longitudinal-extending band saw blade body as claimed in the present invention. Secondly, a discrete cut out separate from the blade valleys 2 themselves is nowhere shown in Balke. As shown in Fig. 2, between teeth 6 and 7, there is no cut out defined in blade valley 2. Therefore, the Balke patent does not teach or suggest a longitudinal-extending blade with a blade valley having a cut out in a lower part of each blade valley as claimed in amended claims 1 and 10.

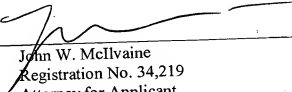
In addition, it would not have been obvious to use a tooth rack pattern of a circular saw blade as in the Balke patent on a band saw having a flat, longitudinal metal blade because of the differences in the physical properties. The type of blade pattern disclosed in the Balke patent would cause too much drag when used on a band saw thereby possibly bending and/or breaking the band saw blade due to a build-up of dust within the kerf of a workpiece, particularly when the dust is a hard substance such as wood or bone. A circular saw blade unlike a band saw blade is generally rigid (not capable of bending) and, therefore, would not as easily bend or break due to a build-up of sawdust within the kerf of a workpiece as would a band saw blade. Therefore, it would not have been obvious to use a saw blade pattern for a rigid circular saw blade as disclosed in the Balke patent on a flat, longitudinal metal blade of a band saw as disclosed in the Karubian patent in order to best cut through meat or bone of a carcass. One skilled would not have looked to a circular saw blade to address problems associated with a band saw blade. In view of the above, reconsideration and withdrawal of the rejection of claims 1-10 are respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant believes that claims 1-10 are patentable over the prior art of record and are in condition for allowance. Accordingly, withdrawal of the rejection and allowance of claims 1-10 are respectfully requested.

Respectfully submitted,

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